

Mr. John Chambers
Tri-Wall, a Weyerhaeuser Company
2626 County Road 71
Butler, Indiana 46721

Dear Mr. Chambers :

Re: Exempt Construction and Operation Status,
033-12014-00011

The application from Tri-Wall, a Weyerhaeuser Company, received on March 14, 2000 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the installation of the following printer to be used in printing corrugated boxes, to be located at 2626 County Road 71, Butler, Indiana 46721, is classified as exempt from air pollution permit requirements.

One (1) Ward Flexographic printer-folder-gluer to replace the current Universal Printer/slotter and associated folder/gluer. This printer has a line speed of 1086 feet per minute, and printing width of 70 inches.

This existing source is operating under 326 IAC 2-10, Permit by Rule Permit Program.

Any change or modification which will alter operation in such a way that the source will no longer comply with 326 IAC 2-10, Permit by Rule Permit Program, must obtain the appropriate approval from the OAM under 326 IAC 2-1.1, 326 IAC 2-2, 326 IAC 2-3, 326 IAC 2-7, 326 IAC 2-8, or 326 IAC 2-9 before such change may occur. This source may at any time apply for a state operating permit under 326 IAC 2-6.1, a Part 70 permit under 326 IAC 2-7, a FESOP under 326 IAC 2-8, or an operating agreement under 326 IAC 2-9, as applicable. [326 IAC 2-10-1(b)]

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

APD

cc: File -DeKalb County
DeKalb County Health Department
Air Compliance - Doyle Houser
Permit Tracking - Janet Mobley
Technical Support and Modeling - Michele Boner
Compliance Data Section - Karen Nowak

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for Exemption Construction

Source Background and Description

Source Name: Tri-Wall, a Weyerhaeuser Company
Source Location: 2626 County Road 71
County: DeKalb
SIC Code: 2653
Operation Permit No.: Permit by Rule
Permit Reviewer: Aida De Guzman

The Office of Air Management (OAM) has reviewed an application from Tri-Wall, a Weyerhaeuser Company relating to the construction and operation of the following printer used in corrugated boxes printing:

One (1) Ward Flexographic printer-folder-gluer to replace the current Universal Printer/slotter and associated folder/gluer

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on March 14, 2000.

Emission Calculations

- (a) Printer VOC Emissions: See Page 1 of 1 TSD Appendix A for detailed calculations.
- (b) Printer HAPs Emissions:

PRESS I. D.	MAXIMUM LINE SPEED (FT/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin2/YEAR
Ward Flexo Folder Gluer	1086	70	479473

INKS EMISSIONS					
Ink Name Press I.D.	Maximum Coverage (lbs/MMin2)	Weight % HAP	Flash Off %	Throughput (MMin2/Year)	HAPs Emissions (Tons/Year)
Ward Flexo Printer Folder Gluer					
Hydro Skid Resist Varnish	1	1.19%	100%	479473	2.85
HG 2MS 108U Yellow NK	1	0.54%	100%	479473	1.29
HG PMS 285U Blue NK	1	0.51%	100%	479473	1.22
MG SPEC PMS 293C Blue	1	0.53%	100%	479473	1.27
HG SPEC PMS 321U Blue NK	1	0.26%	100%	479473	0.63
HG SPEC IBM Dark Blue	1	0.28%	100%	479473	0.67

Note: The HAP emitted is only Glycol Ethers.

Methodology:

HAP Emission = Throughput, MMin2/Year * Maximum Coverage, lbs/MMin2 * Weight % HAP * Flash Off % * ton/2000 lb

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.0
PM-10	0.0
SO ₂	0.0
VOC	7.65
CO	0.0
NO _x	0.0

HAP's	Potential To Emit (tons/year)
Glycol Ethers	2.85
TOTAL	2.85

Justification for Modification

The existing source is operating under 326 IAC 2-10, Permit by Rule Program. The proposed installation of the new printer which has a PTE of 7.65 tons/year of VOC, is exempted from air pollution permit requirements, 326 IAC 2-1.1-3 because VOC is emitted at a rate of less than 10 tons per year.

Actual Emissions

No previous emission data has been received from the source.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Ward Flexo printer	0.0	0.0	0.0	7.65	0.0	0.0	2.85
Total Emissions	0.0	0.0	0.0	7.65	0.0	0.0	2.85

County Attainment Status

The source is located in DeKalb County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) DeKalb County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD Definition (emissions based on the Facility Subsystem Quick Look Report dated January 21, 1999):

Pollutant	Emissions (ton/yr)
PM	35.9
PM10	35.9
SO ₂	0.0
VOC	5.6
CO	0.0
NO _x	0.0
Single HAP	0.0
Combination HAPs	0.0

- (a) This existing source is **not** a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is operating under the Permit by Rule Program, 326 IAC 2-10.

Federal Rule Applicability

- (a) New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60)

40 CFR § 60.430, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing: This standard applies to each publication rotogravure printing press, that commences construction, modification, or reconstruction after October 28, 1980.

The one (1) Ward Flexographic printing press is not subject to this NSPS, because it is not a rotogravure printing press.

- (b) National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63)

40 CFR § 63.820, Subpart KK - National Emission Standard for the Printing and publishing Industry: This standard applies to major source of hazardous air pollutants (HAPs), at which publication rotogravure, product and packaging rotogravure, or wide-web flexographic printing presses are operated.

Although, the proposed printing press is a flexographic type, it is not subject to this NSPS because it is not major for single and combined hazardous air pollutants.

State Rule Applicability -

- (a) 326 IAC 8-5-5 (Miscellaneous Operations: Graphic Arts Operations)
This rule applies to new packaging rotogravure, publication rotogravure, and flexographic printing sources constructed after November 1, 1980, located anywhere in the state with potential emissions of twenty-five tons per year or more of volatile organic compounds.

This rule does not apply to Tri-Wall, because its volatile organic compounds (VOC) emissions of 7.65 tons per year are well below 25 tons per year.

- (c) 326 IAC 8 (Volatile Organic Sources)
There are no other rules in Article 8 that could possibly apply to the proposed flexographic printing press.
- (d) 326 IAC 2-4.1 (Major Sources for Hazardous Air Pollutants)
This printer is not subject to this rule because it is not major for single nor combined HAP emissions.

Conclusion

The construction and operation of this one (1) Ward Flexographic printer-folder-gluer shall be subject to the conditions of the attached proposed **Exemption 033-12014-00031**.

**Appendix A: Emissions Calculations
VOC From Printing Press Operations**

Page 1 of 2 TSD App A

Company Name: Tri-Wall, A Weyerhaeuser Co.
Address City IN Zip: 2626 CR 71, Butler, Indiana 46721
Exemption No.: 033-12040-00011
Reviewer: Aida De Guzman
Date: April 4, 2000

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET PER MINUTE)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
	1086	70	479473

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
HG PMS 285U blue ink	1	1%	100.00%	479473	2.47
HV XTRA GCMI 31 blue	1	1%	100.00%	479473	2.83
HV XTRA GCMI 33 blue	1	2%	100.00%	479473	3.62
HV XTRA GCMI 387 blue	1	1%	100.00%	479473	3.19
Bankers Box II black	1	3%	100.00%	479473	7.65
Hydro LR black	1	3%	100.00%	479473	7.53
HV XTRA GCMI 80 orange	1	2%	100.00%	479473	4.39
HV XTRA GCMI 81 orange	1	2%	100.00%	479473	3.76
HG SPEC CERRO copper nk	1	2%	100.00%	479473	4.55
HG SPEC PMS 356C Green M	1	2%	100.00%	479473	4.32

Total VOC Emissions	7.65 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

METHODOLOGY

Throughput = Maxium line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 * Weight percentage volatiles (water minus organics) * Flash off * Throughput * Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93))

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HV XTRA GCMI 33 blue	1	2%	100.00%	479473	3.62
HV XTRA GCMI 387 blue	1	1%	100.00%	479473	3.19
Bankers Box II black	1	3%	100.00%	479473	7.65
Hydro LR black	1	3%	100.00%	479473	7.53
HV XTRA GCMI 80 orange	1	2%	100.00%	479473	4.39
HV XTRA GCMI 81 orange	1	2%	100.00%	479473	3.76
HG SPEC CERRO copper nk	1	2%	100.00%	479473	4.55
HG SPEC PMS 356C Green M	1	2%	100.00%	479473	4.32

Total VOC Emissions	7.65 Ton/yr
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*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * 1 Ton per 2000 pounds

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